Academy of Romanian Scientists
Journal of Knowledge Dynamics

Exploring Multidimensionality of Competitive Advantage in Higher Education

Ion POPA[1], Nicolae ISTUDOR[2], Simona Cătălina ŞTEFAN[3], Corina-Elena MIRCIOIU[4] and Silvia Melania GAL[5]

[1] Bucharest University of Economic Studies, 6 Piata Romana, 1s district, 010374, Bucharest, Romania; : 0000-0003-0703-3828; ion.popa@man.ase.ro (corresponding author)

[2] Bucharest University of Economic Studies, 6 Piata Romana, 1st district, 010374, Bucharest, Romania; : 0000-0002-4581-4548; nicolae.istudor@ase.ro

[3] Bucharest University of Economic Studies, 6 Piata Romana, 1st district, 010374, Bucharest, Romania; : 0000-0003-4731-6785; simona.stefan@man.ase.ro

[4] Bucharest University of Economic Studies, 6 Piata Romana, 1st district, 010374, Bucharest, Romania; : 0009-0004-2450-7903; corina.mircioiu@man.ase.ro

[5] Bucharest University of Economic Studies, 6 Piata Romana, 1st district, 010374, Bucharest, Romania; : 0009-0006-3625-5138; galsilvia21@stud.ase.ro

Received: October 3, 2025
Revised: October 27, 2025
Accepted: November 10, 2025
Published: December 15, 2025

Abstract: Beyond the traditional mission of teaching and research, universities face the challenge to articulate sustainable forms of competitive advantage. The academic literature mentions numerous key factors, but the need for an integrative framework that highlights the major perspectives, and their characteristic elements persists. The paper aims to explore the multidimensionality of competitive advantage in higher education context from the perspective of scientific production that addresses this topic. Using data from the Web of Science query and the PRISMA model, a conceptual framework focused on five interconnected dimensions emerged: the educational dimension, the research dimension, the community relationship dimension, the social responsibility and sustainability dimension, and the internationalization dimension. The study provides a reference framework for understanding competitive advantage in higher education, which can serve as a benchmark for both research and practice of strategic management in higher education.

Keywords: competitive advantage, higher education, content analysis, multidimensionality, PRISMA model

Introduction

Inspired by Porter's (1985) framework, the concept of competitive advantage (CA) has been explored in all its facets and in relation to a wide range of industries. Farida and Setiawan (2022) discuss this concept in the context of business strategies for small and medium enterprises, highlighting the crucial role of innovation in achieving it. Krakowski et al. (2023) link CA to artificial intelligence, while the study by Shehadeh et al. (2023) reveals that digital transformation, entrepreneurial orientation, and innovation collectively create CA. Additionally, Ştefan et al. (2016) also portray CA within the medical sector as a multidimensional concept that integrates economic, quality, social, and strategic perspectives.

The field of education is nonetheless one that researchers have focused on extensively regarding the state of competitiveness and gaining an advantage in this regard (Bratianu & Lefter, 2001). Facing a dynamic international market, evolving regulations, and more demanding international students, the higher education (HE) industry in many countries

How to cite
Popa, I., Istudor, N., Ştefan, S.C., Mircioiu, C.E., Gal, S.M. (2025). Exploring multidimensionality of competitive advantage in higher education. *Journal of Knowledge Dynamics,* Vol. 2, No. 2, pp.17-31. https://doi.org/10.56082/jkd.2025.2.17 ISSN ONLINE 3061-2640

is undergoing rapid change (Sultan & Yin Wong, 2014). This significant transformation is fueled by intensified competition that arises from both internal sources, such as institutional leadership and students, and external pressures from entities like governments, global corporations, and ranking organizations (Bratianu, 2002, 2022; Hart & Rodgers, 2024). Consequently, in today's academic landscape, universities are struggling to differentiate themselves, in dire need of a distinctive CA. With more options available, students now have greater power in choosing where to study, and academic institutions must therefore focus on building a distinct brand image to navigate this challenging environment (Panda et al., 2019). While significant progress has been made, a unified model encompassing all key dimensions of CA within the academic sector remains to be established. Given all above, the present paper aims to answer the following question:

What are the main dimensions of CA in HE from the perspective of academic literature?

Hence, the scope of this paper is to provide an integrative conceptual framework for understanding CA in HE by applying a qualitative content analysis to academic literature, focusing on structuring a multidimensional model of university competitiveness. By adopting this approach, the authors seek to build an integrated model that transcends fragmented perspectives, thereby capturing the high level of complexity of CA in today's academic world.

The structure of the paper includes a conceptual section that covers the fundamental framework of CA and its connection to HE institutions. It then moves to the methodological part, which highlights the entire research process, the utility of each step, and the justification for using qualitative content analysis. This is followed by a presentation of the results, a discussion section that shows how various academic studies relate to these findings, and finally, conclusions that are based on the study's theoretical and practical implications, limitations, and future research directions.

Competitive advantage in higher education

The concept of CA refers to the characteristics of individual products or markets that will help a company gain a better position over its competitors (De Haan, 2015). This is also supported by Porter (2008), who speaks about CA as the ability of an organization to develop unique and sustainable value, with the help of resources that contribute to the differentiation from its competitors. Moreover, the value chain is the foundation of this, where organizations conduct their activities to achieve the highest possible performance. At the same time, he argues that CA can be achieved through lower costs, differentiation, or by focusing on a specific market segment. Hence, these concepts have also formed the basis for conceptual framework in the field of education, where we can observe how universities are increasingly competing for resources, students, and academic prestige.

However, in the last decade, globalization and new technologies have dramatically increased the expectations of stakeholders and amplified the complexity of international management processes. In this scenario, the role of universities goes way beyond the traditional teaching and research roles. For example, they really help with social and economic development, make it easier to share knowledge with the business world, and create a good environment for entrepreneurial initiatives (Miotto et al., 2020).

While originally developed for the business world, CA and competitiveness theories have started to make their way into the HE sector. The reason for this is that universities, like companies, face the same type of competition, both needing to survive and achieve better results (De Haan, 2015).

In the current environment, administrators of public universities face a series of complex challenges resulting from reduced public funding, increased competition at both the national and international levels, and the rising expectations of stakeholders. Moreover, they are under increasing pressure to demonstrate transparency and accountability in all their activities. Consequently, both internal and external stakeholders demand higher standards in terms of research and teaching quality, knowledge efficiency, graduate employability, and community involvement (Miotto et al., 2020).

In the last few years, HE institutions have faced several major challenges, caused by the growing process of internationalization, the fast-changing job market, and the increasing demand for innovative teaching and learning methods. As a result, universities are competing harder to get the best students, hire high performing teachers, form strategic partnerships with businesses, and build modern and attractive educational infrastructures. In parallel, financial difficulties and reduced government support have increased the need to develop sustainable strategies that make institutions more attractive and resilient to change (Miotto et al., 2020).

These challenges have also intensified the debate on how competition and competitiveness shape the long-term performance of HE institutions. In their review of the literature on competition in HE, Hart and Rodgers (2024) identify the main sources of both internal and external competition and examine how these factors influence institutional performance. The authors show that, although competition can stimulate the quality of teaching, research, and innovation, it can also generate negative effects, such as stress, a decline in service quality, and damage to reputation. The study proposes conceptual frameworks that clarify the relationships between resources, competition, and CA and offers recommendations for balancing academic excellence, quality management, and strategic collaborations.

Several main sources for competitive growth in HE can be found in the specialized literature. A university's brand image and reputation are key elements that attract more students and help strengthen the university's position in the field of education (Panda et al., 2019). Particularly important sources of differentiation are the quality of research and teaching, combined with international recognition and academic performance (Hart & Rogers, 2024).

Miotto et al. (2020) argues that the role of universities has gone way beyond the traditional limits of teaching and research, with them becoming key players in social and economic development and in boosting entrepreneurship. In contrast, Panda et al. (2019) place emphasis on institutional branding and reputation as important factors in attracting students and strengthening position in the education market. Hart and Rogers (2024) complement these perspectives by showing that sources of competitiveness should be understood not only as tangible advantages - such as infrastructure or educational programs - but also as intangible dimensions, such as public perception, strategic collaborations, and the quality of academic management. Comparing these contributions, we observe that the literature combines two major directions: on the one hand, the focus on concrete resources and infrastructure, and on the other hand, the importance of image factors and external relations, which can determine the success of a university in the competitive global context.

Research highlights the specific ways in which universities build their CA. For example, Boşcor (2015) conducted a study on Transilvania University of Brasov, highlighting the role of program diversity, international collaborations, and local reputation in strengthening the university's position. At the same time, we can see how Rosdi (2017)

showed that research universities in Malaysia contribute to the development of CA by combining unique resources with strategic capabilities and internationalization initiatives. Thus, we can state that this CA in HE emerges both from visible strategies, such as educational programs and collaborations with external partners, and from unique resources that cannot be replicated by competitors.

Analyzing the literature, we can say that CA in HE does not have a single source but is made up of several factors. Studies have highlighted that elements such as a university's image and reputation (Panda et al., 2019), the quality of research and the diversity of university programs (Boşcor, 2015), as well as unique resources (Rosdi, 2017) play a very important role in differentiating universities. At the same time, the position of universities in a global context is strengthened by internationalization processes and the development of strategic partnerships, as this global market becomes increasingly competitive (Hart & Rogers, 2024). Therefore, the literature argues that universities that manage to implement these dimensions have a better chance of achieving much higher performance, as they are much better prepared and, at the same time, they outline their long-term relevance.

Materials and Methods

This study aims to establish a reference framework for the CA of HE institutions through its multidimensionality. To achieve this, the analysis conducted is both qualitative and quantitative, specifically a content analysis which, with its objective and systematic nature, studies communication to formulate valid and replicable conclusions. This study places a greater emphasis on its qualitative side, attempting to group the specific elements of CA for universities into well-defined categories for later interpretation (Harwood & Garry, 2003; Prasad, 2008).

The research process is based on a query of the Web of Science database (Clarivate, 2025), using keywords such *"competitive advantage"* or *"competitive strategy"* at the intersection with *"higher education"*, *"universit*"* or *"academia"*, using the Topic filter. Figure 1 presents the PRISMA diagram (Page et al., 2021) specific to the entire query process. In the first stage, 1,926 publications were identified in the database according to the aforementioned terms. These were then checked and filtered according to the following requirements: (1) written in English; (2) document type - Article, Early Access or Review Article; (3) included only in Social Sciences Citation Index (SSCI) given that topics based on HE field and competitive advantage are generally rooted in the social sciences and (4) to be published between 2020 and 2025 to capture the specificities of the dynamics of CA in the contemporary period. Publications that did not meet these criteria, a total of 1,751, were excluded. Furthermore, the abstracts of the 175 documents that successfully passed the filtering process were checked to see if they aligned with the purpose of the analysis, and 141 of these were excluded at this stage. Hence, 34 abstracts of publications that corresponded to the research scope were considered for further analyses.

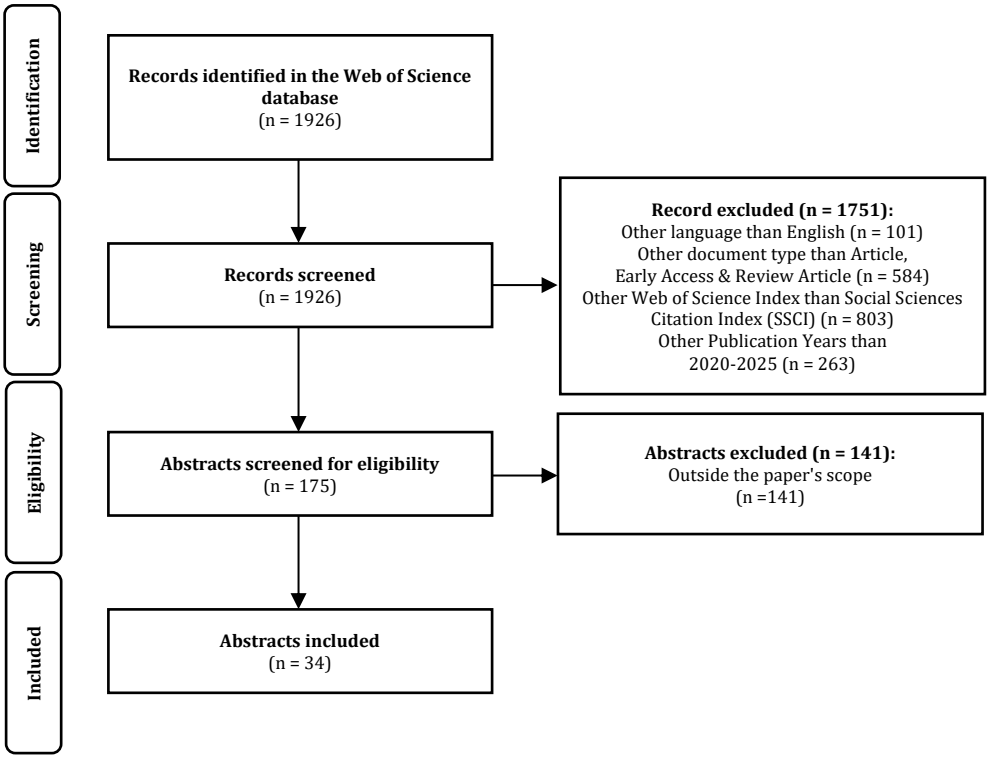

Figure 1. PRISMA diagram
(Source: Author's conception adapted from Page et al. , 2021)

Furthermore, with the help of the QDA Miner Lite software program (Provalis Research, 2025), the content of the 34 abstracts included in the analysis was analyzed. The foundation of the analysis was inspired by Strategy of the Bucharest University of Economic Studies 2020-2030 (2019)**,** which highlights the existence of for key areas characteristic of CAs in the academic environment, namely: (1) education dimension - focuses on developing students creative thinking and practical skills, ensuring their successful integration into the national and European job markets; (2) scientific research dimension - dedicated to advancing knowledge and addressing current societal challenges through research projects and to facilitate collaboration in interdisciplinary research teams for generating practical solutions for the Romanian, European, and global economies; (3) relations with the community and the economic and social environment dimension - centered on building and strengthening strong ties with the community and to capitalize on the diverse and skilled human capital of both faculty and students to foster partnerships at local, national, and international levels; (4) international relations and internationalization dimension - aims to position the university as a global hub by attracting foreign students and partners.

Results

Table 1 presents the reference framework for CA in HE institutions, representing the conceptual foundation derived from the content analysis of the 34 abstracts of the targeted publications. The results span three levels. The first level reflects the key dimensions, which are representative of each facet of academic activity, the second level focuses on segmenting each dimension to highlight all the layers that compose it and, finally, the third level comprises the specific terms discovered through the analysis process, the grouping of which made it possible to structure the entire framework.

Table 1. Reference Framework for CA in Universities

Dimension	Category	Key Terms for Analysis
Educational Dimension	Educational Management and Strategy	Educational management strategy, Planning, Operational management
	Student Experience and Engagement	Student expectations, Student experience, Academic interest, Student recruitment, Student retention, Student attraction, Study options, Student satisfaction, Emotional attachment
	Graduate Employability and Career	Employability, Transition between HE and the labor market, Career management
	Academic Human Resources	Workplace climate, Academic staff satisfaction, Academic staff rewards, Human resource management practices, Effectiveness of academic talents and skills, Academic freedom, Quality of life at work, Institutional hierarchies
	Teaching-Learning Process and Curriculum	Teaching, Teaching-learning methods, Pedagogy, Distance learning, Online programs, Curriculum flexibility, Educational services, Doctoral qualifications, Educational quality, Library services
	Learning and Knowledge Environment	Artificial intelligence adoption, Knowledge internalization, Knowledge acquisition, Learning environment, Business schools
Research Dimension	Organizational Management and Competencies	Knowledge management capabilities, Process capabilities, Structural capabilities, Management behavior, Strategic management practices, University vision, Technical capabilities, Managerial capabilities, Digital competence, Academic competencies, Cognitive capabilities, Knowledge-oriented leadership, Transformational leadership, Transactional leadership
	Research Process and Impact	Research activity, Knowledge transfer, Publication / publication in top journals, Research evaluation, Innovation, Performance
	Resources, Infrastructure and Technology	Research resources, Intellectual capital, Internal financial support for research, Artificial intelligence, Digital transformation, Digitalization, Technological change
	Strategic Approach	Hybrid strategies, High-level research policies, Learning evolution, Knowledge-oriented culture

Community Relations Dimension	Reputation and Image	Legitimacy, Reputation, Brand, Social media, National and international rankings, Top universities, Non-elite universities
	Collaboration and Partnerships	Information exchange, Stakeholders, Community collaboration, Partner support, Access to external knowledge and capabilities, Student relations, Academic partnerships, Interdepartmental cooperation alliances, Partnerships with companies, Interorganizational relations, Academic networks, Collaborative university, Technology transfer, Graduate employers
	Institutional Environment	Institutional environment, Organizational factors, Institutional changes, Strategic marketing, Competitive strategy
	External Context	Market characteristics, Competition, Competitiveness, External pressures, Regional development, National needs, Labor market relations, Government policies, Industry and external market, Cultural / social capital
Social Responsibility and Sustainability Dimension	Management and Strategy	Corporate social responsibility, Sustainable development / sustainability, Economic sustainability
	Human Resources and Learning	Sustainable human resource management, Lifelong learning, Career sustainability / career ecosystems
	Social Impact and Role in Society	Social context, Public programs, Distribution (of wealth, jobs, power), Globalization
Internationalization Dimension	Strategy and Resources	Internationalization strategy, Strategic positioning, Internationalization resources, International HE
	Partnerships and Collaboration	Transnational and cross-border partnerships, Selection of international partners, Collaboration with foreign specialists, Foreign systems, European HE area, Faculty exchange program
	Impact and Outcomes	Status of graduates returning to their home country, Competencies acquired abroad, International job market for academic staff, Doctoral degree obtained abroad, Double degrees, Joint degrees
	Context and Environment	Regional differences, Contextual differences, National macro level, Regional level, Local level

(Source: Authors with the help of QDA Miner Lite program, Provalis Research, 2025)

The analysis reveals that a university's CA is built upon a structure consisting of five main pillars, four of them inspired by Strategy of the Bucharest University of Economic Studies 2020-2030 (2019), respectively educational, research, community relations and internalization dimensions, to which is added the dimension of social responsibility and sustainability which deals with integrating the principles of sustainable development and promoting inclusion and diversity. The *educational dimension* is defined by its focus on the student journey and academic processes, exploring topics from educational management and strategy to student experience and engagement, graduate employability and career, academic human resources, the teaching-learning process and curriculum, and the overall learning and knowledge environment. The *research dimension* delves into the university's capacity for innovation and knowledge creation, encompassing organizational management and competencies, the research process and impact, resources, infrastructure and technology, and its overarching strategic approach. In terms of external relationships, the *community relations dimension* covers the university's reputation and image, its collaboration and partnerships, the institutional environment, and the broader external context. The *social responsibility and sustainability dimension* outlines the institution's role in society, detailing its management and strategy, human resources and learning initiatives, and its ultimate social impact and role in society. Lastly, the *internationalization dimension* focuses on global presence, addressing strategy and resources, partnerships and collaboration, impact and outcomes, and the context and environment of international operations.

Discussion

In the first instance, we discuss the *educational dimension*. This dimension is composed of six segments, presented below. Educational management and strategy refers to *educational management strategy*, whose path undergoes changes due to digital transformation (Hashim et al., 2022), as well *as planning and operational management*, which, if rigorous, ensure the efficient functioning, effectiveness, and long-term viability of educational programs (Warren & Churchill, 2022). As for the Student Experience and Engagement category, the analysis revealed that *student experience* and *student engagement* (Aledo-Ruiz et al., 2022) are essential for a university's competitive strategy, and success in this area is closely tied to intangible and strategic factors. *Student expectations* can be managed through digital transformation (Hashim et al., 2022) and through the rigorous planning of *study options*, such as distance learning programs (Warren & Churchill, 2022). *Student recruitment* and *retention* depend on the university's ability to enhance *student attraction*. This is achieved by offering international study options, such as joint programs (Kralova et al., 2024). Also, an essential factor contributing to *student satisfaction* and retention is *emotional attachment*, which is built on concrete elements, such as the university's reputation and corporate social responsibility practices (Aledo-Ruiz et al., 2022; Özer et al., 2023). With regard to Graduate Employability and Career, *employability* represents a CA for graduates, based on their acquired skills and the resources they possess (Gu et al., 2022; Li, 2024). This competence is crucial in the *transition between HE and the labor market*, a complex process that can be better understood through a resources-based approach (Li, 2024). The success of graduates' *career management* depends on understanding their needs through theoretical frameworks like career ecosystems (Donald et al., 2020).

In terms of *Academic Human Resources*, *workplace climate* contributes to a university's reputation (Miotto et al., 2020), while *quality of life at work* and *academic freedom* are important factors, especially in business schools (Khatun et al., 2023). Regarding personnel, *academic staff satisfaction* is a consequence of fair *human resource management practices*, including systems for *academic staff rewards* (Gu et al., 2022).

Through these practices, universities can maximize the *effectiveness of academic talents and skills* (Gu et al., 2022), ensuring healthy and competitive development. Furthermore, *institutional hierarchies* influence hiring and career decisions (Chiang, 2025). Teaching-Learning Process and Curriculum category show that the process of *teaching* and *curriculum flexibility* are essential for adapting to new demands in HE (Liang et al., 2025). *Teaching-learning methods* and *pedagogy* are being modernized, influenced by digital innovation and labor market demands (Marulanda-Grisales & Vera-Acevedo, 2023; Mortimer & Escalante, 2022). To provide high-quality education, universities rely on *educational quality* and the strategic development of their *educational services* (Crupi & Mortara, 2025; Marulanda-Grisales & Vera-Acevedo, 2023). These include *distance learning* and *online programs*, which require rigorous strategic planning to ensure viability (Warren & Churchill, 2022). Academic support is crucial: achievements like *doctoral qualifications* are essential (Chiang, 2025), and modernizing resources such as *library services* contributes to an effective learning process (Okunlaya et al., 2023). Regarding Learning and Knowledge Environment, we note that *artificial intelligence adoption* directly influences the *learning environment* (Erdmann & Toro-Dupouy, 2025; Okunlaya et al., 2023), transforming academic processes. Within universities, and especially in *business schools* (Schlegelmilch et al., 2025), success depends on the processes of *knowledge acquisition* and *knowledge internalization* (Crupi & Mortara, 2025), which are essential processes for developing managerial competencies.

The second main source area of CA is the *research dimension*, spread across four segments. The first of these, Organisational Management and Competencies, captures knowledge-oriented leadership through transformational and transactional leadership styles, which directly influence *knowledge management capabilities*, including *structural* and *process capabilities* (Bagherimajd & Khajedad, 2025). Moreover, *management behavior* (Nurcholis, 2021) and *strategic management practices* (Hashim et al., 2022) are crucial for aligning *university vision* (Hashim et al., 2022) with institutional objectives. In terms of competencies, the articles emphasize the importance of *academic competencies* (Deitz et al., 2023), *managerial capabilities* and *technical capabilities* (Sanders & Wong, 2021). The development of these, including *cognitive capabilities* (Crupi & Mortara, 2025) and *digital competence* (Vaillant & Lafuente, 2025), is necessary for navigating the complex HE environment. Research Process and Impact focuses on how academic institutions manage their *research activity* to ensure *high performance* (Zhe et al., 2023) and maintain a CA. To achieve this, universities use *research evaluation* systems (Zhe et al., 2023) and encourage *publication*, especially in *top journals* (Deitz et al., 2023), to solidify their reputation and authority. *Innovation* (Iqbal, 2021) is a key outcome of research, supported by *knowledge transfer* (Vesperi et al., 2021) to the business sector, thus strengthening the link between the academic and economic environments.

In the sphere of *Resources, Infrastructure and Technology*, *digital transformation*, along with *digitalization* (Hashim et al., 2022) and *technological change* (Schlegelmilch et al., 2025), is redefining the academic environment. A key resource in this context is *artificial intelligence* (Erdmann & Toro-Dupouy, 2025; Okunlaya et al., 2023), which plays a transformative role in services and processes. Institutional capital is equally important. *Intellectual capital* (Marulanda-Grisales & Vera-Acevedo, 2023) is a valuable research resource. However, it seems that *internal financial support for research* (Khatun et al., 2023) is an area where many institutions face challenges. From a Strategic Approach point of view, *high-level research policies* directly influence institutional decisions, and to implement them, universities use *hybrid strategies* (Liang et al., 2025). These strategies are essential for adapting to a rapidly changing environment based on a *learning evolution* approach (Hashim et al., 2022). In addition, a *knowledge-oriented culture* (Iqbal, 2021) is

vital for facilitating knowledge transfer and supporting innovation at the academic and organizational levels.

The content analysis continues with the *community relations dimension* which presents itself in four facets. Reputation and Image are essential intangible assets for a CA. *Reputation* and *legitimacy* (Miotto et al., 2020) are influenced by various factors, from the *university's brand* to *social media* content (Karadag et al., 2024). *National and international rankings* (Kralova et al., 2024) are important tools that influence public perception and legitimize performance, differentiating *top universities* (Chiang, 2025) from *non-elite universities* (Gu et al., 2022). Collaboration and Partnerships are vital elements for the survival and growth of HE institutions. Relationships with *stakeholders* (Miotto et al., 2020), including *student relations* (Özer et al., 2023), are fundamental, and *community collaboration* (Miotto et al., 2020) is becoming an essential aspect. Institutions rely on *partner support* (Erdmann & Toro-Dupouy, 2025) and form various *academic partnerships* (Rauf & Abbasi, 2024), including *interdepartmental cooperation alliances* (Marulanda-Grisales & Vera-Acevedo, 2023) to solidify their position. Collaboration with the external environment, such as *partnerships with companies* (Crupi & Mortara, 2025; Vesperi et al., 2021), is gaining increasing importance. These partnerships allow *access to external knowledge and capabilities* (Sanders & Wong, 2021) and facilitate *technology transfer* (Ventura et al., 2020). A *collaborative university* (Ventura et al., 2020) builds *academic networks* (Chiang, 2025) and *interorganizational relations* (Vesperi et al., 2021), which are also essential in the relationship with *graduate employers* (Donald et al., 2020) through *information exchange* (Hashim et al., 2022).

The *institutional environment* is distinguished by *organizational factors* (Vesperi et al., 2021) that are essential for responding to pressures from the *institutional environment* (Erdmann & Toro-Dupouy, 2025). Organizations must adapt to *institutional changes* (Patnaik et al., 2022) by revising their *competitive strategy* and *strategic marketing* (Karadag et al., 2024). Universities operate in a complex External Context, which strongly influences their strategy and functioning. The authorities exert pressure through high-level *government policies* (Hong & Hardy, 2022), and institutions must respond to *national needs* and contribute to *regional development* (Li & Xue, 2024). In an environment with *external pressures*, universities face intense *competition* to maintain their *competitiveness* (Hart & Rodgers, 2024). This is true across various markets, from the *labor market* (Li, 2024) to the *industry and external market* (Hong & Hardy, 2022). In this context, *cultural and social capital* (Li, 2024) becomes a significant element of CA.

The *dimension of social responsibility and sustainability* is explored through the prism of three segments. From the Management and Strategy lens, *sustainable development* (Zhe et al., 2023) and *economic sustainability* (Hong & Hardy, 2022) are key objectives for universities, aiming for a sustainable CA. In this context, *corporate social responsibility* (Aledo-Ruiz et al., 2022) and *sustainability* (Hong & Hardy, 2022) are integrated into various aspects of university strategy. In addition, Human Resources and Learning processes are increasingly oriented toward sustainability. Donald et al. (2020) explores the conceptualization of *sustainable graduate careers* through models like *career ecosystems*. They emphasize the importance of *lifelong learning* and *sustainable human resource management*, which are essential for ensuring the long-term employability of graduates. Regarding Social Impact and Role in Society, in the landscape of *globalization* and hyper-competition (Miotto et al., 2020), academic institutions are involved in *public programs* (Abu Sa'a & Gunnarsson, 2025) to facilitate access to knowledge. Furthermore, universities play a role in the *distribution* (Li, 2024) of power and status, thus influencing the social mobility of graduates.

The last pillar of the analysis, *the internationalization dimension,* is divided into four directions. In terms of Strategy and Resources, *internationalization* is an essential strategic direction for *HE* (Hong & Hardy, 2022). Universities are adopting an *internationalization strategy* (Nurcholis, 2021) to strengthen their *strategic positioning* (Li & Xue, 2024) in a competitive global market. In this process, *internationalization resources* (Li & Xue, 2024) become crucial for supporting their objectives and maintaining a CA. Partnerships and Collaboration, as a main component of the internationalization strategy, include *transnational and cross-border partnerships* (Mortimer & Escalante, 2022; Sanders & Wong, 2021), the *selection of international partners* (Sanders & Wong, 2021) which is done carefully to ensure synergies, *collaboration with foreign specialists* (Kralova et al., 2024) and *faculty exchange programs* (Khatun et al., 2023). Such cooperation is facilitated by *foreign systems* (Chiang, 2025). One specific aspect is the *European HE area* (Kralova et al., 2024), which provides a framework for these partnerships and contributes to the harmonization of academic standards.

In relation to *impact and outcomes* of *internationalization dimension*, we note that *double degrees* and *joint degrees* (Kralova et al., 2024) are tangible outcomes of international partnerships, as are *doctoral degrees obtained abroad* (Chiang, 2025). These qualifications, along with *competencies acquired abroad* (Gu et al., 2022), are essential for graduates and influence the *status of graduates returning to their home country* (Gu et al., 2022). On the other hand, the *international job market for academic staff* (Chiang, 2025) is competitive and influences their mobility and career choices. About Context and Environment, there are significant *contextual differences* (Sanders & Wong, 2021), which are reflected at various levels. At the *macro-national level* (Li & Xue, 2024), government policies and regulations play a crucial role. *Regional differences* (Erdmann & Toro-Dupouy, 2025) also directly influence innovation and development. Interventions at *regional* and *local* (Li & Xue, 2024) levels are vital to support development objectives and to adapt to the specificities of the academic environment.

Conclusions

The present research has established a reference framework for the CA of educational institutions, exploring the complexity of this phenomenon through its characteristic multidimensionality. It has thus resulted in a blend of essential dimensions (educational, research, community relations, social responsibility, and internationalization), predominantly based on intangible assets.

Theoretical implications. The main theoretical contribution of this paper is demonstrating the multidimensionality of CA, creating an integrative framework of all its components. The study's results go beyond the boundaries of a traditional perspective, showing that the success of a university's competitive strategy is primarily based on intangible assets such as brand, reputation, a knowledge-oriented culture, building strong relationships with stakeholders, and exchanges of experience.

Practical implications. From a practical perspective, the proposed framework is a valuable strategic tool for university leaders and academic stakeholders. Through it, they can understand and analyze, in a structured manner, the competitive position of the institutions they are part of or wish to establish a connection with. Thus, it provides the fundamental coordinates needed in the decision-making process to achieve a sustainable CA within a university, whether this involves improving the student and staff experience, strengthening partnerships and research investments, or adopting a solid position in the landscape of globalization.

Research limitations. However, the study has certain limitations that reduce its generalizability. These include focusing on publications found only in the Web of Science database, which may not cover the entire nature of the subject. Additionally, the content analysis only considers the abstracts of the papers, and the research process focuses solely on the 2020-2025 period, which does not support a longitudinal analysis.

Future research directions. Future research can focus on conducting a temporal analysis of CA, comparing the strategies adopted by HE institutions over multiple periods. In this way, it will be possible to easily identify the steps of an academic success path and what were the primary elements that were taken into account in this process.

Acknowledgments:
The research presented in this paper was partially funded by the Academy of Romanian Scientists within the research project competition for young researchers "AOȘR-TEAMS-III", 2024-2025 edition, project "Challenges and perspectives of organization management in the new paradigm of digital transformation".
This paper partially resulted from research developed through the doctoral program in the field of Management at the Bucharest University of Economic Studies.

References

Abu Sa'a, E., & Gunnarsson, A. (2025). Gaining from university-industry collaboration: Considerations for less experienced firms. *Journal of Technology Transfer*. https://doi.org/10.1007/s10961-025-10244-4.

Aledo-Ruiz, M. D., Martínez-Caro, E., & Santos-Jaén, J. M. (2022). The influence of corporate social responsibility on students' emotional appeal in the HEIs: The mediating effect of reputation and corporate image. *Corporate Social Responsibility and Environmental Management, 29*(3), 578–592. https://doi.org/10.1002/csr.2221.

Bagherimajd, K., & Khajedad, K. (2025). Modeling Sustainable Drivers of Competitive Advantage Through Knowledge-Oriented Leadership with Mediation of Knowledge Management Capabilities in the Higher Education System. *Journal of the Knowledge Economy, 16*, 7634–7664. https://doi.org/10.1007/s13132-024-02030-8.

Boşcor, D. (2015). Source of competitive advantage in the field of higher education. . Case Study: Transilvania University of Brasov. *Bulletin of the Transilvania University of Brasov. Series V: Economic Sciences*, 8/57(2), 379-384.

Bratianu, C. (2002). *Management strategic*. Editura Universitaria, Craiova.

Bratianu, C. (2022). *Knowledge strategies*. Cambridge University Press, Cambridge.

Bratianu, C., & Lefter, V. (2001). *Management strategic universitar*. Editura RAO, Bucuresti.

Bucharest University of Economic Studies. (2019). *Strategy of the Bucharest University of Economic Studies 2020-2030*. Retrieved September 13, 2025, from https://ase.ro/universitatea/conducerea/strategia-ase-2020-2030.

Chiang, L. (2025). Doctoral qualifications matter in the competitive faculty job market: the perspectives of university senior administrators and their implications. *Studies in Higher Education*. https://doi.org/10.1080/03075079.2025.2522740.

Clarivate. (2025). *Web of Science Core Collection*. Retrieved August 28, 2025, from https://www.webofscience.com/wos/woscc/basic-search.

Crupi, A., & Mortara, L. (2025). Building middle managers' managerial dynamic capabilities through collaborations: exploring the microfoundations in a university-industry consortium. *Journal of Technology Transfer*. https://doi.org/10.1007/s10961-025-10242-6.

De Haan, H. H. (2015). Competitive advantage, what does it really mean in the context of public higher education institutions?. *International Journal of Educational Management*, *29*(1), 44-61. https://doi.org/10.1108/IJEM-07-2013-0115.

Deitz, G. D., Hansen, J. D., Fox, J. D., & Morgan, R. M. (2023). Masterful scholarly competences and the development of impactful B2B marketing theory: Contributions of Dr. Shelby D. Hunt. *Industrial Marketing Management, 115*, 368–377. https://doi.org/10.1016/j.indmarman.2023.10.006.

Donald, W. E., Baruch, Y., & Ashleigh, M. J. (2020). Striving for sustainable graduate careers: Conceptualization via career ecosystems and the new psychological contract. *Career Development International, 25*(2), 90–110. https://doi.org/10.1108/CDI-03-2019-0079.

Erdmann, A., & Toro-Dupouy, L. (2025). The influence of the institutional environment on AI adoption in universities: identifying value drivers and necessary conditions. *European Journal of Innovation Management*. https://doi.org/10.1108/EJIM-04-2024-0407.

Farida, I., & Setiawan, D. (2022). Business strategies and competitive advantage: the role of performance and innovation. *Journal of open innovation: Technology, market, and complexity, 8*(3), 163. https://doi.org/10.3390/joitmc8030163.

Gu, J., Nyland, C., Fan, X., & Wu, D. (2022). Returnee status, academic staff rewards and psychological contract fulfilment in China's higher education sector. *Personnel Review, 51*(4), 1298–1313. https://doi.org/10.1108/PR-08-2020-0612.

Hart, P. F., & Rodgers, W. (2024). Competition, competitiveness, and competitive advantage in higher education institutions: a systematic literature review. *Studies in Higher Education, 49*(11), 2153–2177. https://doi.org/10.1080/03075079.2023.2293926.

Harwood, T. G., & Garry, T. (2003). An overview of content analysis. *The Marketing Review, 3*(4), 479-498. https://doi.org/10.1362/146934703771910080.

Hashim, M. A. M., Tlemsani, I., & Matthews, R. (2022). Higher education strategy in digital transformation. *Education and Information Technologies, 27*(3), 3171-3195. https://doi.org/10.1007/s10639-021-10739-1.

Hong, M., & Hardy, I. (2022). Sustainability and the Australian international higher education industry: towards a multidimensional model. *Sustainability Accounting Management and Policy Journal, 13*(5), 1060–1081. https://doi.org/10.1108/SAMPJ-11-2021-0481.

Iqbal, A. (2021). Innovation speed and quality in higher education institutions: the role of knowledge management enablers and knowledge sharing process. *Journal of Knowledge Management, 25*(9), 2334–2360. https://doi.org/10.1108/JKM-07-2020-0546.

Karadag, H., Tosun, P., & Ayan, B. (2024). User-generated and brand-generated content as indicators of university brand personality and business strategy. *Journal of Marketing for Higher Education, 34*(2), 646–668. https://doi.org/10.1080/08841241.2022.2056281.

Khatun, A., Sarmah, R., & DarnAff, S. N. (2023). Knowledge Management Practices in India: a Case Study of a Premier B-School. *Journal of the Knowledge Economy, 14*(2), 905–923. https://doi.org/10.1007/s13132-022-00923-0.

Krakowski, S., Luger, J., & Raisch, S. (2023). Artificial intelligence and the changing sources of competitive advantage. *Strategic Management Journal, 44*(6), 1425-1452. https://doi.org/10.1002/smj.3387.

Kralova, Z., Nemcokova, K., & Kankova, H. (2024). Joint Degrees - A Competitive Advantage of Czech Higher Education Institutions (?). *Journal of Competitiveness, 16*(2), 103–116. https://doi.org/10.7441/joc.2024.02.06.

Li, Z. (2024). A critical examination of the use of 'capitals approach' in graduate employability research. *Critical Studies in Education*. https://doi.org/10.1080/17508487.2024.2443527.

Li, J., & Xue, E. Y. (2024). Conceptualizing and contextualizing three-dimensional interaction model of internationalization: Evidence from China. *Educational*

Philosophy and Theory, 56(1), 20–32. https://doi.org/10.1080/00131857.2022.2074834.

Liang, H. Q., Zhao, K., & Li, J. L. (2025). Responding to the new research assessment reform in China: the universities' institutional hybrid actions. *Journal of Higher Education Policy and Management, 47*(4), 473–489. https://doi.org/10.1080/1360080X.2024.2446372.

Marulanda-Grisales, N., & Vera-Acevedo, L. D. (2023). Analysis of core competences and competitive advantages in higher education institutions: An intellectual capital approach. *Knowledge Management Research & Practice, 21*(5), 957–971. https://doi.org/10.1080/14778238.2022.2118636.

Miotto, G., Del-Castillo-Feito, C., & Blanco-González, A. (2020). Reputation and legitimacy: Key factors for Higher Education Institutions' sustained competitive advantage. *Journal of Business Research, 112*, 342–353. https://doi.org/10.1016/j.jbusres.2019.11.076.

Mortimer, C., & Escalante, M. A. L. (2022). Response-able pedagogy: teaching through Shakespeare in a Higher Education (HE) transnational partnership. *Culture and Organization, 28*(3-4), 345–361. https://doi.org/10.1080/14759551.2022.2031198.

Nurcholis, L. (2021). How to Improve Internationalization Strategy Based on Market Characteristics, Culture Understanding, and Knowledge Management: the Mediating Effect of Management Behavior. *Journal of the Knowledge Economy, 12*(4), 1717–1740. https://doi.org/10.1007/s13132-020-00682-w.

Okunlaya, R. O., Abdullah, N. S., & Alias, R. A. (2022). Artificial intelligence (AI) library services innovative conceptual framework for the digital transformation of university education. *Library Hi Tech, 40*(6), 1869–1892. https://doi.org/10.1108/LHT-07-2021-0242.

Özer, M., Özer, A., & Koçak, A. (2023). Identification and emotional attachment in higher education: antecedents and consequences. *Journal of Marketing for Higher Education, 33*(2), 264–288. https://doi.org/10.1080/08841241.2021.1936744.

Page, M.J., McKenzie, J.E., Bossuyt, P.M., Boutron, I., Hoffmann, T.C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ, 372, n71*. https://doi.org/10.1136/bmj.n71.

Panda, S., Pandey, S. C., Bennett, A., & Tian, X. (2019). University brand image as competitive advantage: a two-country study. *International Journal of Educational Management*, *33*(2), 234-251. https://doi.org/10.1108/IJEM-12-2017-0374.

Patnaik, S., Munjal, S., Varma, A., & Sinha, S. (2022). Extending the resource-based view through the lens of the institution-based view: A longitudinal case study of an Indian higher educational institution. *Journal of Business Research, 147*, 124–141. https://doi.org/10.1016/j.jbusres.2022.03.091.

Porter, M. E. (1985). *The competitive advantage: Creating and sustaining superior performance*. Free Press.

Porter, M. E. (2008). *Competitive advantage: Creating and sustaining superior performance*. NY: Free Press.

Prasad, D. B. (2008). Content analysis: A method of social science research. In L. Das (Ed.), *Research methods for social work* (pp. 174–193). Rawat Publications. https://doi.org/10.13140/RG.2.1.1748.1448.

Provalis Research. (2025). *QDA Miner Lite - Free Qualitative Data Analysis Software*. Retrieved September 5, 2025, from https://provalisresearch.com/products/qualitative-data-analysis-software/freeware.

Rauf, K., & Abbasi, M. W. (2024). Understanding student perception and identification in cobranded UK HEIs based on consumer-company identification theory. *Journal of Marketing for Higher Education*. https://doi.org/10.1080/08841241.2024.2379256.

Rosdi, S. A. M. (2017). Resources, capabilities, strategies and competitive advantage of research university in Malaysia. *Management Research Journal*, *6*, 74-85. https://doi.org/10.37134/mrj.vol6.7.2017.

Sanders, J. S., & Wong, T. N. (2021). International partner selection among higher education institutions in Hong Kong, Singapore and Japan: a resource-based view. *Journal of Higher Education Policy and Management, 43*(2), 214–229. https://doi.org/10.1080/1360080X.2020.1774097.

Schlegelmilch, B. B., Waltenberger, M., & Teerakapibal, S. (2025). Navigating different stakeholder challenges to legitimacy in business schools: Implications from a systematic literature review. *International Journal of Management Education, 23*(2), 101175. https://doi.org/10.1016/j.ijme.2025.101175.

Shehadeh, M., Almohtaseb, A., Aldehayyat, J., & Abu-AlSondos, I. A. (2023). Digital Transformation and Competitive Advantage in the Service Sector: A Moderated-Mediation Model. *Sustainability, 15*(3), 2077. https://doi.org/10.3390/su15032077.

Sultan, P., & Yin Wong, H. (2014). An integrated-process model of service quality, institutional brand and behavioural intentions: The case of a University. *Managing Service Quality, 24*(5), 487-521. https://doi.org/10.1108/MSQ-01-2014-0007.

Ştefan, S. C., Popa, I., & Dobrin, C. O. (2016). Towards a Model of Sustainable Competitiveness of Health Organizations. *Sustainability, 8*(5), 464. https://doi.org/10.3390/su8050464.

Vaillant, Y., & Lafuente, E. (2025). Higher education institutions as co-innovation partners: compensating, complementing, and facilitating firms' co-innovation to their optimum possibility frontier. *Journal of Technology Transfer*. https://doi.org/10.1007/s10961-025-10196-9.

Ventura, R., Quero, M. J., & Diaz-Mendez, M. (2020). The role of institutions in achieving radical innovation. *Marketing Intelligence & Planning, 38*(3), 310–324. https://doi.org/10.1108/MIP-01-2019-0050.

Vesperi, W., Melina, A. M., Ventura, M., Coppolino, R., & Reina, R. (2021). Organizing knowledge transfer between university and agribusiness firms. *Systems Research and Behavioral Science, 38*(3), 321–329. https://doi.org/10.1002/sres.2785.

Warren, S. J., & Churchill, C. (2022). Strategic, operations, and evaluation planning for higher education distance education. *Distance Education, 43*(2), 239-270. https://doi.org/10.1080/01587919.2022.2064821.

Zhe, C., Chen, C., Zheng, Y., Xiong, X., & Xiao, T. (2023). Evaluation of Scientific Research in Universities Based on the Theories for Sustainable Competitive Advantage. SA*GE Open, 13*(2). https://doi.org/10.1177/21582440231177048.